

CLAIMS

1. A computer system, comprising:

a plurality of computers, each computer having a power requirement;

a power supply to supply power to said plurality of computers, said power supply having a known power capacity;

a power monitor to monitor the total power requirement of said plurality of computers;

and

a power controller responsive to a request for power from an additional computer, resulting in a new total power requirement, to determine whether the new total power requirement exceeds the known power capacity, and responsive to the new total power requirement exceeding the known power capacity to cause said power supply to reduce the power supplied by said power supply to each computer of said plurality of computers and to provide said additional computer with less power than indicated in the request for power.

2. A computer system as claimed in claim 1, wherein one of said computers is a server.

3. A computer system as claimed in claim 1, further comprising a computer rack having said plurality of computers, said power supply, said power monitor, and said power controller therein.

4. A computer system, comprising:

a plurality of computers, each computer having a power requirement;

a power supply to supply power to said plurality of computers, said power supply having

a known power capacity;

a power monitor to monitor the total power requirement of said plurality of computers;

and

a power controller responsive to a request for power from an additional computer, resulting in a new total power requirement, to determine whether the new total power requirement exceeds the known power capacity, and responsive to the new total power requirement exceeding the known power capacity to cause said power supply to continue to provide the total power requirement of said plurality of computers and to provide only standby power to said additional computer.

5. A computer system as claimed in claim 4, wherein one of said computers is a server.

6. A computer system as claimed in claim 4, further comprising a computer rack having said plurality of computers, said power supply, said power monitor, and said power controller therein.

7. A computer system, comprising:

a plurality of computers, each computer having a power requirement;

a power supply to supply power to said plurality of computers, said power supply having a known power capacity;

a power monitor to monitor the total power requirement of said plurality of computers;

and

a power controller responsive to a request for power from an additional computer,

resulting in a new total power requirement, to determine whether the new total power requirement exceeds the known power capacity, responsive to the new total power requirement exceeding the known power capacity to determine whether said plurality of computers can operate with reduced power and said additional computer can operate with less power than indicated in the request for power, responsive to said plurality of computers being able to operate with reduced power and said additional computer being able to operate with less power than indicated in the request for power to cause said power supply to reduce the power supplied by said power supply to each computer of said plurality of computers and to provide said additional computer with less power than indicated in the request for power, and responsive to said plurality of computers not being able to operate with reduced power or to said additional computer not being able to operate with less power than indicated in the request for power to cause said power supply to continue to provide the total power requirement of said plurality of computers and to provide only standby power to said additional computer.

8. A computer system as claimed in claim 7, wherein one of said computers is a server.

9. A computer system as claimed in claim 7, further comprising a computer rack having said plurality of computers, said power supply, said power monitor, and said power controller therein.

10. A process of controlling power supplied to a plurality of computers, said process comprising:

determining the power available;

monitoring the total power requirement of a plurality of computers;

in response to detection of a request for power from an additional computer, determining a new total power requirement; and

when the power available is less than the new total power requirement, reducing the power supplied to each computer of the plurality of computers and providing the additional computer with less power than indicated in the request for power.

11. A process of controlling power supplied to a plurality of computers, said process comprising:

determining the power available;

monitoring the total power requirement of a plurality of computers;

in response to detection of a request for power from an additional computer, determining the new total power requirement; and

when the power available is less than the new total power requirement, continuing to provide the total power requirement of the plurality of computers and providing only standby power to the additional computer.

12. A process of controlling power supplied to a plurality of computers, said process comprising:

determining the power available;

monitoring the total power requirement of a plurality of computers;

in response to detection of a request for power from an additional computer, determining the new total power requirement;

when the power available is less than the new total power requirement, determining whether the plurality of computers can operate with reduced power and whether the additional computer can operate with less power than indicated in the request for power;

when each computer of the plurality of computers can operate with reduced power and the additional computer can operate with less power than indicated in the request for power, providing reduced power to each computer of the plurality of computers and providing the additional computer with less power than indicated in the request for power; and

when at least one computer of the plurality of computers can not operate with reduced power or the additional computer can not operate with less power than indicated in the request for power, continuing to provide the total power requirement of the plurality of computers, and providing only standby power to the additional computers.

13. An article, comprising a storage medium having instructions stored thereon, the instructions when executed controlling power supplied to a plurality of computers by determining the power available; monitoring the total power requirement of a plurality of computers; in response to detection of a request for power from an additional computer, determining a new total power requirement; and when the power available is less than the new total power requirement, reducing the power supplied to each computer of the plurality of computers and providing the additional computer with less power than indicated in the request for power.

14. An article, comprising a storage medium having instructions stored thereon, the instructions when executed controlling power supplied to a plurality of computers by

determining the power available; monitoring the total power requirement of a plurality of computers; in response to detection of a request for power from an additional computer, determining the new total power requirement; and when the power available is less than the new total power requirement, continuing to provide the total power requirement of the plurality of computers and providing only standby power to the additional computer.

15. An article, comprising a storage medium having instructions stored thereon, the instructions when executed controlling power supplied to a plurality of computers by determining the power available; monitoring the total power requirement of a plurality of computers; in response to detection of a request for power from an additional computer, determining the new total power requirement; when the power available is less than the new total power requirement, determining whether each computer of the plurality of computers can operate with reduced power and whether the additional computer can operate with less power than indicated in the request for power; when each computer of the plurality of computers can operate with reduced power and the additional computer can operate with less power than indicated in the request for power, providing reduced power to each computer of the plurality of computers and providing the additional computer with less power than indicated in the request for power; and when at least one computer of the plurality of computers can not operate with reduced power or the additional computer can not operate with less power than indicated in the request for power, continuing to provide the total power requirement of the plurality of computers, and providing only standby power to the additional computers.